

CoreCard Software White Paper Series

Meeting the Challenges of Today's Prepaid Market

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1. Introduction

Prepaid cards enable banks, merchants and businesses to add a pure revenue-generating channel with a variety of programs across the world. Prepaid cards not only produce revenue in a variety of ways, but also provide a number of ways for an issuer or processor to control and even reduce expenses.

TowerGroup, the global research and advisory firm, estimates that by 2010, prepaid and gift card usage will be \$75 billion, a 600% increase over 2005; and 375 million cards will be in circulation, a 1,000% increase. And according to the Mercator Advisory Group, in the United States, the open-loop, branded prepaid market will see an annual market spend of \$28 billion, and the closed-loop, private label prepaid market spend of \$171 billion between 2006 and 2009.

Card issuers require highly flexible, end-to-end solutions that will quickly adapt to evolving market requirements. CoreCard is a leader and innovator in the payments market, providing credit software solutions which are complementary to the expanding prepaid market. This combination of prepaid and credit products offers significant market opportunities and revenue generating streams for financial institutions, retailers, government agencies, healthcare providers, and processors of both open and closed loop prepaid cards.

As the prepaid market expands, new participants enter the market putting additional pressure on existing participants to keep costs down while determining new ways to increase revenues. Let's take a look at some of the market segments with the prepaid card market, as well as, opportunities for revenue growth and expense reductions and how CoreCard is helping meet these challenges.

2 Prepaid Card Industry Challenges Met by CoreCard

a) *Supporting Different Types of Prepaid Cards*

Prepaid Card revenue occurs in many forms, depending on the product. It is also a function of the entity of the customer. For example, a payroll card issuer may collect monthly fees and various transaction fees depending on the type and the location of the transaction (ATM, POS, Domestic, International, etc.). A processor may collect numerous fees including a fee for producing and delivering the plastic card, a monthly fee for maintaining the account on its system, authorization fees, transaction fees, network fees, etc.

In some cases, processors and issuers implement revenue sharing based on the metrics of a particular prepaid card program offered by an issuer. While revenue sharing often helps maintain a card issuer's profit margin, it may also make it more difficult for an issuer to compete with other issuers that do not have the same constraint.

i) *CoreCard: Support of Unlimited Product Types*

Prepaid cards exist in many "flavors", from the traditional gift card to the more robust general use prepaid card, which includes overdraft protection using a real or "shadow" credit line. CoreISSUE supports most prepaid card programs, usually without any change to the system beyond interfaces to external systems. A single account may even consist of several different cards and balances, including cards of different types (credit, debit and prepaid).

In CoreISSUE, accounts are associated with "Billing Tables" to control fees, handle insurance, track loyalty and manage interest on "mixed" account types – such as accounts that combine prepaid and credit features. Billing tables may be created to represent any group of accounts, for example accounts issued to individuals in a specific state or country. This allows the system to easily comply with numerous and varied state, federal and country regulations.

ii) *CoreCard: Branded Network Support*

CoreISSUE is fully compliant with the MasterCard and VISA networks. Larger issuers who have their own network interface devices send and receive transactions directly between the CoreISSUE system and these networks. Issuers who are not directly connected to these networks are also supported via interfaces between CoreISSUE and major processors (called "switches") who support ISO8583 based messages. A similar interface is available using "HTTP" and "XML" message formats.

In addition to VISA and MasterCard, other networks such as the Automated Clearing House are supported for sending and receiving transactions. Using the ACH interface, funds may be pulled from a bank account automatically and added to a card or transferred from a card to a bank account. This works well for such applications in which:

- Funds in a fixed amount are deposited periodically - Student spending cards
- Funds are deposited each time the balance falls below a certain threshold - Toll road payments
- Funds that may be transferred from their card to a bank account - Employee payroll cards for employees that travel extensively (for example, truck drivers) may need this capability for funds use by other family members.

b) ***Risks in the Prepaid Market***

A growing use of prepaid cards is with “unbanked” and “under banked”, individuals who do not have a traditional checking or savings account with a financial institution or cannot qualify for a traditional credit card.

Employers can deposit funds directly to the prepaid card and employees can withdraw money at ATMs, make purchases at POS terminals or online merchants and even transfer funds to other individuals outside the country using supplementary cards. This practice has recently become controversial because banks allow a card to be issued to an individual without a social security number. Critics claim this policy facilitates “illegal immigrants” working in the U.S. while supporting family in Mexico and other foreign countries.

The transaction fees for this kind of card are generally modest when compared to the cost of purchasing money orders or making money transfers to individuals outside the country, yet they offer lucrative profit margins for issuers. Cardholders enjoy the added security of a prepaid card (a PIN number is required to obtain cash at an ATM and a lost or stolen card can be blocked by the card issuer). At the same time the risk associated with servicing this kind of customer is greater both from fraudulent transactions and non-fraudulent overdraft situations.

i) ***CoreCard: Protection, Authorization and Fraud Checks***

It is a mistaken belief that prepaid cards carry less risk than credit cards because the card requires a deposit before funds can be withdrawn. Many transactions are not authorized by the merchant or authorized for an amount less than the actual transaction amount (gasoline stations and restaurants are good examples). While the card issuer does have the right to charge back the transaction for insufficient funds in such cases, the cost of handling a charge back is not trivial. Merchant fraud may also increase the risk of loss to the card issuer.

Using the CoreISSUE authorization parameters, an issuer has the ability to customize the authorization logic. Certain kinds of transactions may be treated differently based on any information available in the authorization transaction. For example, an authorization sent by a gasoline company for \$1.00 could be checked against the account for some other amount – like \$10.00.

Velocity limits are available and used to reduce the likelihood of fraudulent transactions. Single, daily and monthly (count and amount) purchase and cash advance limits are available at the product level. Single transaction limits are also available at the Merchant Category Code ("MCC") level. Specific merchant locations of MCC codes may be limited, prohibited or referred to a customer service representative for approval. This is particularly useful with student cards or other special purpose card programs like healthcare.

It is also possible to assign an account a "shadow credit limit", which can be used to determine the amount of overdraft available to an individual customer. The customer does not know the amount of the shadow credit limit and may be charged an overdraft fee if the transactions posted exceeds the account available balance. It is even possible to provide a standard and shadow credit limit so the customer knows he/she has some overdraft protection. Shadow credit limits may be based on a credit score from a credit source such as one of the major U.S. credit bureaus or rules may be added to the system to compute a score based on account behavior. In addition, supplementary cards carry their own spending limit that can be set by the primary cardholder via CoreISSUE self-service module (see below). Spending limits can be reset automatically at cycle time or each time a deposit is made to the account. The primary and supplementary cards can share the same account available balance or may each have their own available balance.

c) Growth of Gift Cards

The more established prepaid card market segment is gift cards. Large retailers excel in this market segment. Cards are purchased by friends and relatives and given in lieu of merchandise for all sorts of reasons (birthdays, holidays, etc.). Because a gift card cannot be returned (unlike merchandise), the retailer is guaranteed an amount of revenue based on the card value. In addition, many gift cards are often never used in their entirety, so a left-over amount, known as "breakage" may eventually be earned by the retailer. Unfortunately for many retailers, many states are now limiting a retailer's ability to claim breakage (usually in the form of monthly fees after a specified period of inactivity) and requiring those retailers to turn over these unused amounts to the state as unclaimed property (similar to dormant bank accounts). These regulations may vary from state to state.

Branded gift cards (VISA, MasterCard and American Express) are now competing with the more established retailer's private label gift card. Unlike the retailer's private label gift card, the branded gift card can be used at any location that accepts the branded card. Issued mostly by banks and others companies through an affiliation with a bank, branded gift card issuers usually charge monthly fees after a specified period regardless of activity (generally 6 months). Some even put an expiration date on the card after which any remaining value on the card is forfeited by the cardholder. Retailers have to pay transaction fees to an acquirer just like any other branded credit or debit card, however they have no guaranteed revenue amount and cannot claim any breakage amounts. Purchasers of branded gift cards generally have to pay a fee to purchase a card while purchasers of a retailer's private label gift card do not have to pay a fee. To combat branded cards, many retailers are working together to create gift cards that can be used in more locations (for example "mall cards" that can be used in most stores located in the same shopping mall).

i) CoreCard: Loyalty

While loyalty is traditionally associated with credit card applications, it is becoming more prevalent in debit and prepaid card programs as a way to increase card usage and build brand loyalty. CoreISSUE supports an unlimited number of loyalty programs which can be associated with a specific product, credit plan or merchant. Multiple loyalty programs can be active on a single account at the same time. For example, a "hybrid" account with both prepaid and credit card balances can have different loyalty programs associated with each account sub-type. Loyalty can be earned on specific transactions or locations while excluding others entirely.

1. Expense Control and Increased Revenue Opportunities Met by CoreCard

a) Processor Fees

If an issuer uses a processor to operate its pre-paid card program, negotiations with the processor regarding the fees charged to the issuer is an ongoing exercise. Often, the fees assessed by a processor are based on a projected usage pattern for that pre-paid card. If the issuer wants to move into a new pre-paid card program with a different usage pattern, the issuer may find the processor fee structure reduces or prohibits the new program from becoming profitable. However, because of the relatively short life-span of many prepaid card programs and the constant need to implement new prepaid card programs, an issuer may be in a position to seek out a new processor, including a processor for a specific program without going through the expense and inconvenience of a de-conversion from an existing processor. This option includes bringing new programs in-house while continuing to use a processor to service existing programs.

i) CoreCard Server Based Architecture

The prepaid market is diverse, comprised of many different kinds of products. Some issuers and processors use several different systems to address the needs of a variety of prepaid programs. CoreCard's server-based architecture provides the speed, flexibility and control to effectively manage electronic and card-based payment products. CoreCard's software creates marketing opportunities and is ideally suited for program managers to create and manage card programs including prepaid, health cards, payday loans, fleet, credit card (private label and branded networks) issuance, prepaid reload, merchant acquiring and authorization.

As a CUSTOM PROCESSOR, CoreCard processes prepaid programs with a unique, built-in option for the customer to license the software and become their own processor in the future. Purchasing a software solution from a reputable vendor such as CoreCard Software is also a viable option. Licensed software solutions give the card issuer more control over revenue opportunities and costs and the flexibility to extend the software systems capabilities via in-house or vendor technical support. The CoreISSUE system offers the unique advantage of processing all forms of credit, debit and prepaid cards on a single application.

ii) CoreCard: Self-Service Module

To reduce expenses, many card issuers offer a web-based self-service module in lieu of a paper statement that must be printed and mailed. CoreISSUE includes a self-service module that can be accessed securely via a web browser. Cardholders can view current balances, statements, transactions, outstanding authorizations, add funds to their card and transfer funds from a primary card to secondary cards on the same account. Cardholder may also request a printed statement, change a mailing address or phone number (with proper security). Electronic statements are available online and can be downloaded by the customer in Adobe "pdf" format. Using an interface to a voice response unit ("VRU") system, a customer can use a telephone to inquire on their account balance and the last "x" transactions. Other VRU features include transferring funds from a primary to a secondary card, requesting a printed statement or reporting a lost or stolen card and requesting a replacement card.

b) New Technology

Both Processors and Issuers that process their pre-paid card programs should consider new technology to reduce costs. PC-based systems are proven to be significantly cheaper to install and maintain than systems running on larger hosts such as mainframe, midrange or Unix-based server systems. At the same time, the PC system reliability and security has improved to where there is no significant difference between a PC-based system and a system running on one of the other platforms.

Successful pre-paid card programs often grow rapidly, expanding to hundreds of thousands and even millions of accounts and transactions within a year. The ability for a prepaid card processing system to scale to meet this growth is essential. Many "legacy" systems require large "growth increments", i.e. each upgrade handles a very large number of accounts and transactions. The startup costs for a new program are large and the incremental costs to support rapid growth are also large.

Internet and telephone access to account and transaction data by customers can significantly reduce customer service costs. Real-time transaction processing systems also reduce fraud as well as customer service calls. New Technology systems are designed to support these features while legacy systems are not and often require add-on modules and even separate technology platforms to support these cost-savings features. Costs associated with maintaining several systems will undoubtedly exceed the cost of maintaining one integrated system.

i) CoreCard: Designed to Change with Technology

CoreENGINE is CoreCard's underlying technology platform and the result of research and development efforts which began in 1996. It was designed to solve many of the challenges encountered during credit card processing software implementations over the last 20 years for companies such as Household, GE Capital, National Australia Bank and EDS. The platform is designed to meet the needs of today's prepaid industry as well as those of the future. The products provide next-generation software solutions from end-to-end ... issuing (CoreISSUE) through collections (CoreCOLLECT). CoreCard's solutions provide easy to use parameter-driven controls, real-time transaction processing, built-in fault-tolerance, and a fully scalable architecture. These features allow clients to easily integrate custom interfaces for current or future applications. CoreCard's software provides the market's most feature-rich platform for processing and managing prepaid/stored-value cards, fleet cards, credit cards, debit cards, commercial cards, and private-label cards.

c) Regulatory Changes

As mentioned earlier, many states have already passed legislation governing how issuers may or may not deal with prepaid card breakage. More laws and regulations are likely. For example, last year the U.S. Department of Justice issued an assessment that prepaid cards are a potential alternative to traditional money laundering methods. Any processor's system or issuer's in-house system must be able to quickly adapt to new laws and regulations that are likely to pass. This includes new options to restrict certain kinds of transactions and new reports to monitor certain kinds of activity.

i) CoreCard: PCI Compliance

In order to receive certification from VISA and MasterCard and other associations, a prepaid card software application must meet the Payment Card Industry Data Security Standards (PCIPADSS). CoreCard has taken all necessary steps to ensure all their applications and software products meet all PCI PA DSS requirements. While this is not everything an issuer must do to meet the PCI PA DSS standards (for example, internal procedures and physical security), it will significantly reduce the work an issuer must do to obtain PCI requirements.

Summary

The prepaid card industry is growing rapidly. New market opportunities are presented to card issuers on a frequent basis. In addition, regulatory changes are certain to continue for the foreseeable future as the prepaid card industry matures. In order for a company to take advantage of using prepaid cards, they must choose a solution that is flexible enough to fit their overall operations and marketing needs and allow them to grow in the future.

CoreCard's server-based architecture provides the speed, flexibility and control to effectively manage electronic and card-based payment products. CoreCard developed CoreISSUE, a comprehensive offering, which handles a variety of credit, debit and prepaid products in a single application system. CoreISSUE uses CoreCard's proprietary CoreENGINE software development tool and run time system. CoreENGINE is a fully extensible, real-time universal card transaction processing and lending platform. Its unique architecture enables the rapid development and deployment of robust financial applications. The system has been designed to address both the challenges of today's prepaid market and the technology advances of the future.

About CoreCard Software, Inc.

CoreCard, (www.corecard.com) a leading provider of prepaid and card processing software for processors, offers an array of payment solutions which support the complex requirements of the evolving global financial services industry. Combining unparalleled experience with comprehensive capabilities across the payment industry, CoreCard provides prepaid and credit software for card issuance, prepaid reload, merchant acquiring and authorization. Headquartered in Norcross, GA, CoreCard is a subsidiary of Intelligent Systems Corporation [NYSE Alternext: INS]. For more information, call 770-564-8000 or visit www.corecard.com

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